

Nat Resources 9/27/17

John Store
msu

I made my first pesticide applications as a pesticide handler in May of 1997 while employed by Zelenka Nursery, Grand Haven, Michigan. I obtained Commercial Pesticide Applicator certification in 1982 while employed by White Lake Nursery, Inc., Whitehall, Michigan. With the exception of 3 years spent wholesaling outdoor power equipment 1985 to 1988, I have maintained Commercial Pesticide Applicator certification. I began my association with Michigan State University's Pesticide Safety Education Program (MSU PSEP) in 2006 as temporary technician doing outreach recertification training for pesticide applicators. I left the Landscape Industry in 2008 to work for PSEP part-time while enrolled in a Master's degree program to meet the University's requirement for a full-time outreach position. I started my current position as Program Coordinator in May 2010 following completion of a Master's Degree in Integrated Pest Management.

MSU PSEP primary mission is service to the Private and Commercial certified pesticide applicator community. MSU PSEP produces and maintains the study manuals Michigan pesticide applicators use to prepare for the certification tests. MSU PSEP develops and delivers outreach training to assist applicators with certification and seminars for pesticide applicators to maintain certification by continuing education hours.

I am here today to offer comment and resource for you on Senate Bill Number 542. A bill to amend 1994 PA 451, entitled "Natural resources and environmental protection act," (MCL 324.101 to 324.90106) by adding section 8316b.

Any pesticide products mentioned or discussed, or sample labels introduced during this proceeding are intended for informative and illustrative purposes only. Brand names in this testimony are for identification and illustration purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

The purpose of this bill is to require pesticide application firms be responsible for notifying the registered person requiring prior notification of an application of pesticides on a property directly adjacent to the property on which the individual's primary residence is located.

The current regulation allows the physician determining the individual's sensitivity to recommend additional distance notification deemed necessary and substantiated by the physician. The amendment will limit the additional distance of the dimensions of the adjacent property. This allowance has departed from its original intention and become a way to prevent turf and ornamental application firms from applying pesticides to sites they service.

The Regulation was written in 1994. The language at the time was useful to mitigate exposure to sensitive individuals. The 2008 revision did not change the Section 8316B 1994 standard. The Food Quality Protection Act (FQPA) of 1996 requires all pesticides be reregistered per Section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) every 15 years under current standards. The United States Environmental Protection Agency has placed many more standards to mitigate exposure be placed on the pesticide label. Modern pesticide labels direct

the applicator in practices to mitigate exposure to people and property that were not present in 1994.

Exposure may happen by contact with the formulation, either particle or droplet, volatilization of the formulation, or other off-target movement methods following application. These may include, but are not limited to, surface runoff with water, leaching into groundwater or removal of plant parts containing residue. Some of the distances being determined exceed the capability of the pesticide to reach an individual. The applicator's choice of formulation is the best mitigation to exposure.

Any individual applying a pesticide must follow all pesticide label directions. The label is a legal document. Modern Directions for Use section of the label direct the applicator how to mitigate off-target exposure. These are often titled drift management statements. Michigan has a no tolerance policy for drift.

Rule 5 (1)(b) distances

Droplets or particles

The example turf herbicide product label and droplet drift data show the label specifies a 385-micron or greater droplet size. Referring to the provided table and graph, a 5-mile per hour wind and 3 foot height this herbicide would remain on the application site. The label continues with a 15 mph maximum and unsprayed distance requirements if the applicator uses a nozzle producing a droplet smaller than 385 microns. I conclude if drift were to occur, spray droplet would not travel a distance beyond a directly adjacent property.

Vapor

Volatilization is the change of a liquid to a gas. Volatilization potential varies greatly among pesticide formulations. It is not possible to determine a distance to mitigate something that volatilizes. The applicator has ability to select pesticide formulations with reduced volatility. Temperature application cutoffs and temperature inversion statements on labels are the applicators guidance.

Thank you for the opportunity to give this statement. I invite you questions and discussion.



ACTIVE INGREDIENTS:

Quinclorac	8.43%
Sulfentrazone	0.89%
2,4-D, dimethylamine salt	11.81%
Dicamba, dimethylamine salt	1.49%

OTHER INGREDIENTS: 77.58%

TOTAL 100.00%

THIS PRODUCT CONTAINS:

0.75 lb. 3,7-dichloro-8-quinolinecarboxylic acid per gallon or 8.43%.
0.06 lb. N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide per gallon or 0.89%.
0.88 lb. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 9.81%.
0.10 lb. 3,6-dichloro-o-anisic acid equivalent per gallon or 1.24%.

Isomer Specific By AOAC Methods.

CAS Registry Numbers: Quinclorac (84087-01-4), Sulfentrazone (122836-35-5),
Dicamba, dimethylamine salt (2300-66-5), 2,4-D, dimethylamine salt (2008-39-1).

U.S. Patent 6,849,579

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find some one to explain it to you in detail.)

- 2 -

EPA Registration # 2217-930
MI Product # 201552859

Chemigation: Do not apply this product through any type of irrigation system.

Aerial application: Do not apply as an aerial application.

6. Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of ground application can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements

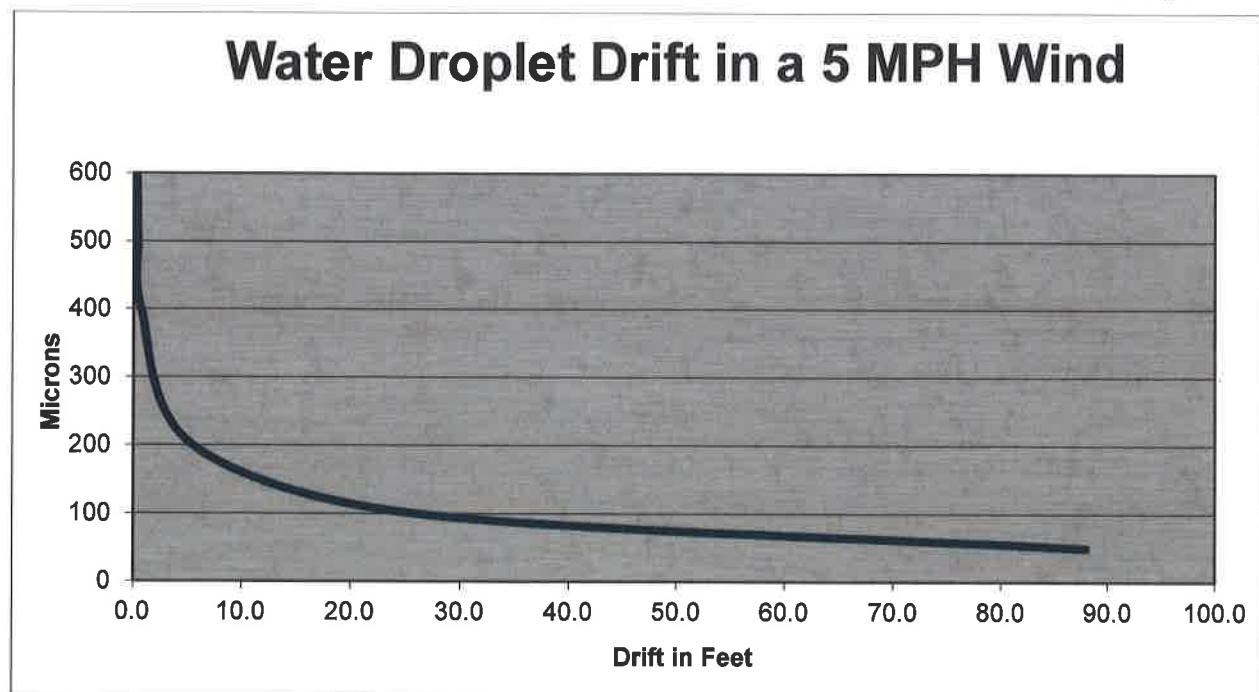
Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

Equipment

All ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. Additional requirements for ground boom application: Do not apply with a nozzle height greater than 4 feet above the turf canopy.

Distance Water Droplet Drifts While Falling 3ft in a 5 MPH Wind

<u>SIZE</u>	<u>MICRONS</u>	<u>DRIFT (FT)</u>
Very Coarse	600	0.3
Coarse	500	0.4
Medium	400	0.7
Fine	200	5.5
Very Fine	100	26.0
Ultra Fine	50	88.0



Can't Repeat Smooth for Volcanic's

